

## Applying the Properties of Exponents

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**Monday Simplify. Your answer should contain only positive exponents.**

1) 
$$\frac{(-4r^3)^2}{-4r^{-1} \cdot -2r^2}$$

2) 
$$\frac{(-3n^4)^4}{3n^2 \cdot 3n^{-1}}$$

**Tuesday Simplify. Your answer should contain only positive exponents.**

3) 
$$\frac{3r^{-3} \cdot -4r^{-4}}{(r^{-4})^3}$$

4) 
$$\left( \frac{-3x^{-1}}{-x^2 \cdot -2x^{-3}} \right)^{-2}$$

**Wednesday Simplify. Your answer should contain only positive exponents.**

5) 
$$\left( \frac{3n^{-3}}{-3n^{-4} \cdot -3n^{-1}} \right)^{-1}$$

6) 
$$\frac{(3b^2)^2}{2b^{-3} \cdot (-b^{-3})^{-2}}$$

**Thursday Simplify. Your answer should contain only positive exponents.**

7) 
$$\left( \frac{n \cdot -m^{-2}n^2}{3nm^2} \right)^{-3}$$

8) 
$$\frac{2x^2y^{-1}}{(-3x^{-4}y^4)^3 \cdot 2x^{-3}y^3}$$

## Applying the Properties of Exponents

Date \_\_\_\_\_ Period \_\_\_\_\_

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**Monday Simplify. Your answer should contain only positive exponents.**

$$1) \frac{(-4r^3)^2}{-4r^{-1} \cdot -2r^2}$$

$$2r^6$$

$$2) \frac{(-3n^4)^4}{3n^2 \cdot 3n^{-1}}$$

$$9n^{15}$$

**Tuesday Simplify. Your answer should contain only positive exponents.**

$$3) \frac{3r^{-3} \cdot -4r^{-4}}{(r^{-4})^3}$$

$$-12r^5$$

$$4) \left( \frac{-3x^{-1}}{-x^2 \cdot -2x^{-3}} \right)^{-2}$$

$$\frac{4}{9}$$

**Wednesday Simplify. Your answer should contain only positive exponents.**

$$5) \left( \frac{3n^{-3}}{-3n^{-4} \cdot -3n^{-1}} \right)^{-1}$$

$$\frac{3}{n^2}$$

$$6) \frac{(3b^2)^2}{2b^{-3} \cdot (-b^{-3})^{-2}}$$

$$\frac{9b}{2}$$

**Thursday Simplify. Your answer should contain only positive exponents.**

$$7) \left( \frac{n \cdot -m^{-2}n^2}{3nm^2} \right)^{-3}$$

$$-\frac{27m^{12}}{n^6}$$

$$8) \frac{2x^2y^{-1}}{(-3x^{-4}y^4)^3 \cdot 2x^{-3}y^3}$$

$$-\frac{x^{17}}{27y^{16}}$$